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EXAMINER

LEE, PHILIP C

ART UNIT	PAPER NUMBER
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2152

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/007,338	Applicant(s) SYED; MAJID	
	Examiner Philip C. Lee	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36,39,40 and 65-89 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-36,39,40 and 65-89 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This action is responsive to the amendment and remarks filed on December 22, 2006.
2. Claims 1-36, 39-40, and 65-89 are presented for examination.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections – 35 USC 112

1. Claims 4-7 and 69-72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claim language in the following claims is not clearly understood:
 - i. As per claim 4, line 4, it is unclear if “a unique ID” refers to “a unique ID” in line 3.
 - ii. As per claim 69, line 4, it has the same problem as claim 4 above.

Claim Rejections – 35 USC 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 8, 13-14, 18, 21-23, 25, 66, 73, 78-79, 83, 86-87, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi et al, U.S. Patent Application Publication 2006/0073810 (hereinafter Pyhalammi) in view of Corts et al, U.S. Patent Application Publication 2002/0095228 (hereinafter Corts).

4. Pyhalammi was cited in the last office action.

5. As per claim 1, Pyhalammi taught the invention substantially as claimed comprising:
a network inbound queue (36, fig. 3) for the reception of instructions related to data content (page 3, paragraph 23);
a scheduler for processing said instructions to determine broadcast times and schedule for said data content (page 3, paragraphs 24 and 25) (delivery class information);
an addressing module for processing said instructions for extracting addressing information (page 3, paragraph 26), and
an outbound queue (36, fig. 3) for storing said encoded data content (pages 3-4, paragraph 27).

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6. Pyhalammi did not teach data processor for encoding data. Corts taught a processor for encoding said data content for digital-radio broadcast transmission ([0197], [0275], [0285]).
7. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts because Corts's teaching of data processor for encoding data would allow Pyhalammi's system to utilize In-Band On-Channel (IBOC) technology to broadcast digitized data along with the digital audio to wireless devices.
8. As per claim 66, Pyhalammi and Corts taught the invention substantially as claimed in claim 1 above. Pyhalammi further taught a content provider center (11, fig. 2) configured to communicate with an application service provider (13, fig. 2), said content provider center configured to process instructions from said application service provider for processing said data content (page 3, paragraphs 23 and 24).
9. As per claims 8 and 73, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi further taught a bandwidth module for bandwidth management, said bandwidth module maintaining queues and prioritizing flows per quality of service (QoS) traffic attributes while managing resources (page 3, paragraph 26).
10. As per claims 13-14 and 78-79, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi further taught a unique identifier, said

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identifier used in targeting said transmitted data content to a specific user agent (page 3, paragraph 26), and said identifier is an URI or a numeric value (page 3, paragraph 26).

11. As per claims 18, 25, 83, and 89, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Corts further taught data content is in any of the following formats: binary, plain text, HTML, XML, WML (fig. 1, i.e., binary signal broadcast across airwave), and wherein said encoded data content is in a digital broadcasting format suitable for reception via a digital consumer radio receiver (fig. 1, [0021]).

12. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts for the same reason as claim 1 above.

13. As per claims 21 and 86, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi further taught instructions include any of the following: time at which transmission is to commence, time at which transmission is to cease, or rate at which data content to be transmitted needs to be repeated (page 2, paragraph 18).

14. As per claim 22, Pyhalammi and Corts taught the invention substantially as claimed in claim 1 above. Corts further taught said gateway receives data content over a network (fig. 3; page 3, paragraph 23).

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15. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts for the same reason set forth in claim 1 above.

16. As per claims 23 and 87, Pyhalammi and Corts taught the invention substantially as claimed in claims 22 and 66 above. Pyhalammi further taught said network comprises any of the following: local area network, wide area network, wireless network, or Internet (abstract).

17. Claims 5, 15-16, 20, 26, 39, 65, 80-81, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Garrity et al, U.S. Patent 6,745,237 (hereinafter Garrity).

18. Garrity was cited in the last office action.

19. As per claim 5, Pyhalammi and Corts taught the invention substantially as claimed as in claim 1 above. Pyhalammi and Corts did not teach an authenticator. Garrity taught an authenticator for authenticating a sender of said instructions (col. 4, lines 46-49).

20. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teaching would increase the security of Pyhalammi's and Corts's systems to prevent unauthorized sender to utilize their systems.

21. As per claims 15 and 80, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Corts further taught a data transformer and a data encoder (IBOC encoding device is considered as both a transformer and encoder), said data transformer converting said data content into a specific format ([0197], [285], [348]), however, Pyhalammi and Corts did not explicitly teach encapsulating data content. Garrity taught a data encoder encapsulating said extracted data content in a specific format (530, 532, fig. 5; col. 8, lines 20-30).

22. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teaching would increase the flexibility of Pyhalammi's and Corts's systems by allowing data to be formatted according to a particular protocol for communication with other entities.

23. As per claims 16 and 81, Pyhalammi, Corts, and Garrity taught the invention substantially as claimed in claims 15 and 80 above. Pyhalammi, Corts, and Garrity did not explicitly teach Turbo Broadcast Layer (TBL) encoder. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a TBL encoder or any type of encoder because by doing so it would increase the flexibility of their system by allowing data to be converted to different formats using different type of encoder.

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24. As per claims 20 and 85, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach synchronized scheduling. Garrity taught wherein said gateway is networked for synchronized scheduling with one or more similar gateways (fig. 2; col. 3, lines 62-65).

25. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teach of synchronized scheduling would enhance Pyhalammi's and Corts's systems by allowing data to be transmitted to a user in the proper sequence.

26. As per claims 26, 39, and 65, Pyhalammi taught the invention substantially as claimed comprising:

receiving instructions from a content provider relating to broadcast of data content (page 3, paragraph 23);

processing said instructions to determine broadcast times and addressing information for said data content (page 3, paragraphs 24 and 25);

receiving said data content via a network (page 3, paragraph 23, fig. 3);

storing said encoded data content (pages 3-4, paragraph 27).

27. Pyhalammi did not teach encoding data. Corts taught encoding said data content for digital radio broadcast transmission ([0197], [0275], [0285]).

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28. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts because Corts's teaching of data processor for encoding data would allow Pyhalammi's system to utilize In-Band On-Channel (IBOC) technology to broadcast digitized data along with the digital audio to wireless devices.

29. Pyhalammi and Corts did not teach authenticating said content provider. Garrity taught authenticating said content provider (col. 4, lines 46-49).

30. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teaching would increase the security of Pyhalammi's and Corts's systems to prevent unauthorized sender to utilize their systems.

31. Claims 2, 3, and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Miller, U.S. Patent Application Publication 2003/0055977 (hereinafter Miller).

32. Miller was cited in the last office action.

33. As per claims 2 and 67, although Corts taught IBOC enabled devices ([0021]), however, Pyhalammi and Corts did not teach profile defining specific data content formats. Miller taught

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a device profile database holding profile associated with consumer devices, and each of said profile defining one or more specific data content formats for said transmission (page 4, paragraph 36).

34. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Miller because Miller's teaching of device profiles would increase the alertness of their system by providing profiles information regarding data format and modality that are compatible with the device of the profile.

35. As per claims 3 and 68, Pyhalammi, Corts and Miller taught the invention substantially as claimed as in claims 2 and 67 above. Although, Miller taught identifying said one or more specific data content formats associated with one or more specific clients (page 4, paragraph 36), however, Miller did not explicitly teach a request for identifying data content formats. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a request for identifying data content format associated with the clients because by doing so it would increase the alertness of their system by providing profiles information regarding data format and modality that are compatible with the device of the profile.

36. Claims 4 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Hirayama, U.S. Patent Application Publication 2006/0069718 (hereinafter Hirayama).

37. As per claims 4 and 69, Pyhalammi and Corts taught the invention substantially as claimed as in claims 1 and 66 above. Pyhalammi and Corts did not teach unique ID associated with sender. Hirayama taught a identification (ID) processor for extracting a unique ID associated with sender of said received instructions, assigning a unique ID associated with broadcast transmissions, and storing said unique ID associated with the sender of said instructions and said unique ID associated with broadcast transmissions ([0136], [0146], fig. 12)

38. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts and Hirayama because Hirayama's teaching of unique ID associated with sender would increase the alertness of Pyhalammi's and Corts's systems by allowing the push initiator to be determined according to the identifier embedded in the message.

39. Pyhalammi, Corts, and Hirayama's did not explicitly teach push transmissions. It would have been obvious to one having ordinary skill in the art at the time of the invention was made that broadcasting can includes push transmission, hence the a unique ID associated with broadcast will be ID associated with push transmission, in order to allow data to be broadcast to user without user request.

40. Claims 9 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Kadyk et al, U.S. Patent 7,046,691 (hereinafter Kadyk).

41. Kadyk was cited in the last office action.

42. As per claims 9 and 74, Pyhalammi and Corts taught the invention substantially as claimed in claims 8 and 73 above. Pyhalammi and Corts did not teach active queues and a passive queues. Kadyk taught an active queue storing data content currently being transmitted (250, fig. 2; col. 9, line 50-col. 10, line 3) and a passive queue storing pushed and pulled data content (230, fig. 2; col. 8, lines 38-45).

43. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Kadyk because Kadyk teaching of active queue and passive queue would increase the flexibility of Pyhalammi's and Corts's system by allowing the system to read the message from the queue when the system is ready to process a new message (col. 8, lines 40-45).

44. Claims 10, 17, 24, 75, 82, and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Official Notice.

45. As per claims 10 and 75, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach a cache. "Official Notice" is taken for the concept of a cache for holding data content to be broadcast is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time

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of the invention was made to include a cache because by doing so it would increase the efficiency of their system by allowing frequently requested data to be stored and quickly accessed.

46. As per claims 17 and 82, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach different protocols. "Official Notice" is taken for the concept of point-to-point protocol (PPP), hypertext transfer protocol (HTTP), or wireless access protocol, are well known in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include different protocol such as HTTP because by doing so it would increase the functionality of their system by allowing browsers to requests webpage from web server on the Internet.

47. As per claims 24 and 88, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach a network database identifying other databases. "Official Notice" is taken for the concept of network database such as Domain Name System (DNS) server identifying other databases is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include network database such as Domain Name System (DNS) server because by doing so it would increase the alertness of their systems by providing Internet Protocol address in response to domain name query.

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48. Claims 11 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Marlow, U.S. Patent Application Publication 2003/0046670 (hereinafter Marlow).

49. Marlow was cited in the last office action.

50. As per claims 11 and 76, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach precompiled binary data. Marlow taught precompiled binary data for transmission (page 3, paragraph 36).

51. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Marlow because Marlow's teaching of precompiled binary data for transmission would increase the user flexibility of Pyhalammi's and Corts's systems by data to be transformed to values appropriate for viewing by the user at a remote location (page 3, paragraph 36).

52. Claims 12 and 77 rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Ellis et al, U.S. Patent Application Publication 2004/0194131 (hereinafter Ellis).

53. Ellis was cited in the last office action.

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54. As per claims 12 and 77, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Although Pyhalammi taught processes information for broadcasting encoded data content (page 2, paragraph 21; page 3, paragraph 25), however, Pyhalammi and Corts did not teach zone information. Ellis taught processes information defining various time zones for broadcasting said encoded data content (page 10, paragraphs 139 and 140).

55. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Ellis because Ellis teaching of defining zone information would increase the flexibility of Pyhalammi's and Corts's systems by allowing data content to be presented to a user based on a defined schedule.

56. Claims 19 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Thompson et al, U.S. Patent 6,907,247 (hereinafter Thompson).

57. Thompson was cited in the last office action.

58. As per claims 19 and 84, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach a timer for tracking timeout. Thompson taught a timer for tracking a predefined timeout for which transmission of data content occurs (col. 4, lines 3-19).

59. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Thompson because Thompson's teaching of a timer for tracking timeout would increase the efficiency of Pyhalammi's and Corts's systems by allowing resources to be released by a user when a timeout period has expired, hence the released resources can be allocated to other users.

60. Claims 6-7 and 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi, Corts, and Hirayama in view of Lin et al, U.S. Patent Application Publication 2002/0146016 (hereinafter Lin).

61. Lin was cited in the last office action.

62. As per claims 6 and 71, Pyhalammi, Corts, and Hirayama taught the invention substantially as claimed as in claims 4 and 69 above. Although Pyhalammi taught said broadcast outbound queue transmitting data content to an external broadcasting network (pages 3-4, paragraph 27), however, Pyhalammi did not teach transmitting data content to said sender of said instructions. Lin taught network outbound queue transmitting data content to said sender of said received instructions (140, fig. 6; page 4, paragraph 53).

63. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, Hirayama, and Lin because Lin's teaching of queue for transmitting data content to said sender would increase the reliability

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of their system by allowing packet to be queue in order to retransmit lost packets (page 4, paragraph 53).

64. As per claims 7 and 72, Pyhalammi, Corts, Hirayama and Lin taught the invention substantially as claimed as in claims 6 and 71 above. Corts further taught an in-band on-channel (IBOC) digital radio broadcast transmission (page 13, paragraph 304).

65. As per claims 27-36 and 40, they fail to define the above and beyond claims (already rejected claims 2, 3, 10 12-15, 18, 23 and 25).

66. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi, Corts, and Hirayama in view of Garrity.

67. As per claim 70, Pyhalammi, Corts, and Hirayama taught the invention substantially as claimed in claim 69 above. Pyhalammi, Corts, and Hirayama did not teach an authenticator. Garrity taught an authenticator for authenticating a sender of said instructions (col. 4, lines 46-49).

68. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, Hirayama, and Garrity because Garrity's teaching would increase the security of Pyhalammi's, Corts's, and Hirayama's systems to prevent unauthorized sender to utilize their systems.


69. Applicant's arguments with respect to claims 1-36, 39-40, and 65-89, filed 12/22/06 have been considered but are moot in view of the new ground(s) of rejection.

70. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (571)272-3967. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or

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P.L.



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